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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/747,109	12/21/2000	Karl J. Wood	PHB 34,436	1480

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EXAMINER

USTARIS, JOSEPH G

ART UNIT PAPER NUMBER

2617

DATE MAILED: 07/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/747,109

Applicant(s)

WOOD, KARL J.

Examiner

Joseph G. Ustaris

Art Unit

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 May 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6, 9-11, 15 and 17-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 9-11, 15, 17 and 19-21 is/are rejected.
- 7) ☒ Claim(s) 18 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. This action is in response to the RCE dated 11 May 2005 in application 09/747,109. Claims 1-6, 9-11, 15, and 17-21 are pending. Claims 1, 9, 10, and 15 are amended. Claims 17-21 have been added.

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 30 March 2005 has been entered.

The 35 USC 112, first paragraph rejection to claims 1 and 15 is now withdrawn in view of the amendments.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 9, 17, 20, and 21 are rejected under 35 U.S.C. 102(e) as being anticipated by Butler et al. (US20020007493A1).

Regarding claim 9, Butler et al. (Butler) discloses a "method of enhancing a television broadcast" (See Figs. 3-4; paragraph 0009). The system uses a broadcast source that broadcasts video content or video stream or "television broadcast signal" and ancillary data or "enhancement signal" to multiple receivers (See Fig. 1). The system prepares multiple hyperlink overlays or "plurality of broadcast signals", where the overlays have a background areas set to a predetermined key color or "being prepared for chroma keying" (See paragraphs 0019-0023). The hyperlink overlays are transmitted to a corresponding receiver (See Fig. 1; paragraph 0019) where then the hyperlink overlays are processed according to the background area key color that provides instructions to what background areas allow overlay to occur or "instructions in the broadcast signal to prepare the signal for chroma keying" (See paragraphs 0023, 0025, and 0036). The PC, which serves the function of the "mixing unit", applies chroma keying to the received hyperlink overlays to create a superimposed signal for display as an enhanced television broadcast (See paragraphs 0036 and 0038).

Regarding claim 17, Butler discloses a PC that serves the function of the "mixer" (See Fig. 2). The PC has a "means for receiving a broadcast television signal" (See Fig. 2, receiver 58) and a "means for receiving an enhancement signal (See Fig. 2, receiver 58 or 138; paragraphs 0017 and 0041). The PC/mixer is configured to apply chroma keying to superimpose the hyperlink overlays on the intercepted television broadcast

signal and to pass the superimposed signal to the television (See Figs. 2-5; paragraphs 0019-0023, 0036, and 0038).

Regarding claim 20, the ancillary data is also sent and received through the Internet (See paragraph 0017).

Regarding claim 21, Butler also discloses that the ancillary data can also be sent via satellite transmission or "wireless transmission" (See Fig. 1; paragraph 0015).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6, 10, 11, 15, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Butler et al. (US20020007493A1) in view of MacInnis et al. (US006700588B1).

Regarding claim 1, Butler et al. (Butler) discloses a "broadcast enhancement system" wherein a broadcast source broadcasts video content or video stream or "television broadcast signal" and ancillary data or "enhancement signal" to multiple receivers (See Fig. 1). The system is used with a television and/or a PC that includes a receiver (See Fig. 2, 58; paragraph 0015, 0026, and 0038), where inherently no adaptation is required to the PC or television in order to perform the functions described herein. The PC also serves the function of the "mixer", where it has another receiver

(See Fig. 2, 138) for receiving a transmission of the ancillary data or “enhancement signal” (See paragraphs 0017 and 0041). The two receivers are arranged separately from each other (See Fig. 2, 58 and 138). The ancillary data includes hyperlink overlays or “one of the two signals” that are prepared for chroma keying (See paragraphs 0019-0023). The PC/mixer is configured to intercept the received television broadcast signal before it is passed to the television, apply chroma keying to superimpose the hyperlink overlays on the intercepted television broadcast signal and to pass the superimposed signal to the television (See Figs. 2-5; paragraphs 0036 and 0038). However, Butler does not disclose that the PC is explicitly embodied as a set-top-box.

Butler suggests that the PC can take different forms other than a personal computer (See Butler paragraphs 0026 and 0054). MacInnis et al. (MacInnis) discloses an apparatus and method for blending graphics and video surfaces. MacInnis discloses that graphic displays systems are used in television control electronics such as STBs. The STB is able to blend graphics and video using various techniques including chroma keying (See Fig. 2 and 3; column 1 lines 45-55, column 7 lines 35-45, and column 14 lines 20-35). Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the PC disclosed by Butler to be embodied as a STB, as taught by MacInnis, in order to provide a convenient compact device that can be easily located near or on a television.

Regarding claim 2, Butler discloses that the ancillary data is used to provide additional information, for example, statistics during a sports broadcast or other detailed information. The ancillary data is sent as HTML files along with control data, wherein the

processor inherently formats the data of the HTML file to be displayed before color keying is applied to overlay the ancillary data with the video stream (See Butler Fig. 2 and paragraphs 0009, 0054, 0055).

Regarding claim 3, the ancillary data contains HTML files or "world wide web page" (See Butler paragraphs 0020 and 0022).

Regarding claim 4, Butler in view of MacInnis does not explicitly disclose that the ancillary data is multiplexed with the television broadcast signal for transmission and for the PC to have a demultiplexer to extract the ancillary data.

Butler suggests many methods for combining the ancillary data with the television broadcast signal (See Butler paragraphs 0015 and 0016). Official Notice is taken that it is well known to multiplex signals together and to use a demultiplexer to separate different signals at a receiver. Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the video broadcast system disclosed by Butler in view of MacInnis to multiplex the ancillary data with the television broadcast signal and for the PC to include a demultiplexer in order to make efficient use of the available bandwidth thus allowing more data to be sent through the transmission medium.

Regarding claim 5, the ancillary data, which inherently contains text and graphics, is also sent and received through the vertical blanking interval (VBI) or "teletext" (See Butler paragraph 0016),

Regarding claim 6, the ancillary data is also sent and received through the Internet (See Butler paragraph 0017).

Claim 10 contains the limitations of claim 1 (wherein the PC, which also serves the function of the mixer, is a STB as discussed in claim 1 above) and is analyzed as previously discussed with respect to that claim.

Claim 11 contains the limitations of claims 1 and 9 and is analyzed as previously discussed with respect to those claims.

Claim 15 contains the limitations of claim 1 (wherein the PC also serves the function of the mixer) and is analyzed as previously discussed with respect to that claim.

Claim 19 contains the limitations of claims 1 and 17 (wherein the PC, which also serves the function of the mixer, is a STB as discussed in claim 1 above) and is analyzed as previously discussed with respect to those claims.

Allowable Subject Matter

4. Claim 18 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claim 18, the prior art of record fails to show or fairly suggest that the "television broadcast signal" is input to "mixer" from the "set-top-box".

Response to Arguments

5. Applicant's arguments filed 30 March 2005 have been fully considered but they are not persuasive.

Applicant argues with respect to claim 9 that Butler fails to disclose a mixing unit to intercept the television signal and superimpose supplementary information in masked areas. However, reading the claim in the broadest sense, Butler does meet the limitations of the claim. Butler discloses a PC that serves the function of the "mixing unit" where it is able to intercept a television signal and overlay or "superimpose" hyperlinks over certain areas (See claim rejection above). Respectfully, Butler does meet all the limitations of claim 9.

Applicant further argues with respect to claims 1 and 15 that Butler fails to disclose a mixer for intercepting and supplementing the broadcast signal with an enhancement signal. However, reading the claims in the broadest sense, Butler does meet the limitations of the claims. Butler discloses a PC that serves the function of the "mixer" where it intercepts and overlays or "supplementing" the broadcast signal with ancillary data (e.g. hyperlink overlays). Please see claim rejections above.

Applicant is reminded that although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).


The examiner suggests that applicant consider providing more details in the independent claims about the relationship between the mixer, set-top box, and television (e.g. how the mixer, set-top box, and television are separate physical units) as supported by applicant specification (See Fig. 1).

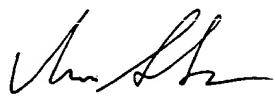
Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph G. Ustaris whose telephone number is 571-272-7383. The examiner can normally be reached on M-F 7:30-5PM; Alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher S. Kelley can be reached on 571-272-7331. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


JGU
July 19, 2005


VIVEK SRIVASTAVA
PRIMARY EXAMINER